## NCEES

## National Council of Examiners for Engineering and Surveying

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# **Engineering Licensure**A Path of Opportunity

What is Licensure? Why Bother? **Steps to Licensure FE Exam** PE Exam

## What is Licensure?

#### To the Public

## Why is it Important?

To You

#### National Council of Examiners for Engineering and Surveying

## NCEES

National non-profit responsible for licensure of engineers & surveyors

Prepares and administers FE exam and PE exam

Offers Records Program for licensed engineers & surveyors





## **Steps to Licensure**



Graduate from an ABET-accredited Engineering Program



Pass the Fundamentals of Engineering Exam (FE)



Acquire Engineering Experience with Increasing Levels of Responsibility with Supervision of a Licensed Engineer



Pass the Principles & Practice of Engineering Exam (PE)



Your Name, P.E.

Enjoy the Benefits of a Professional Engineering License



Pass the Fundamentals of Engineering Exam (FE)

# What is the test like? When should I take it? How do I prepare?

# TEST FORMAT

### 8-Hour Closed-Book Exam

2 Sessions (Morning & Afternoon)



**Morning Session** 

**Engineering Economics** 

**Electrical Circuits** 

Chemistry

**Ethics** 

**Dynamics** 

Fluid Mechanics

**Mechanics of Materials** 

Thermodynamics

**Mathematics** 

**Statics** 

Computers

**Material Science** 



#### **Afternoon Session**

#### **Disciplines**

- Chemical
- Civil
- Electrical
- Industrial
- Mechanical
- Environmental

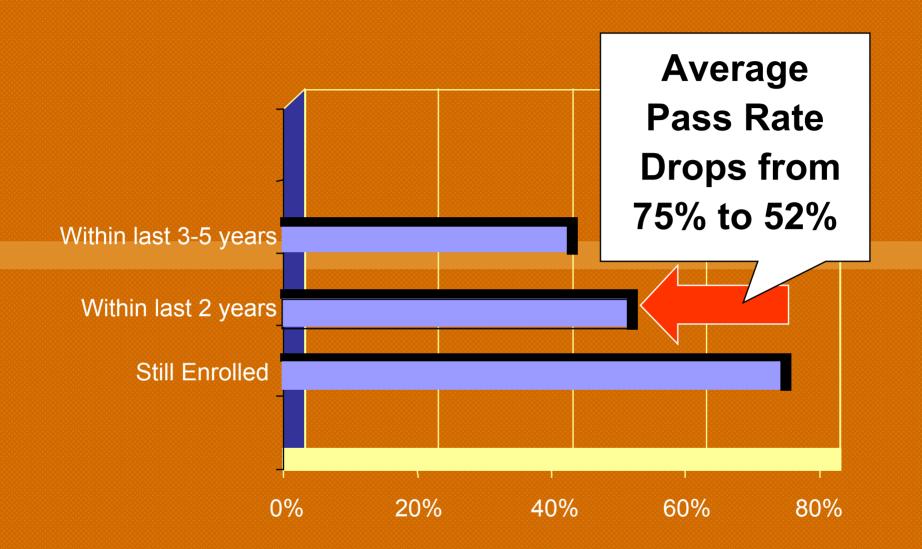
#### **General**

- Same topics as morning



- -Computers & Numerical Methods
- -Construction Management
- -Environmental Engineering
- -Hydraulics & Hydrologic Systems
- -Legal & Professional Aspects
- -Soil Mechanics & Foundations
- -Structural Analysis
- -Structural Design
- -Surveying
- -Transportation Facilities
- -Water Purification & Treatment

# WHEN



# PREPARATION



Pass the Principles & Practice of Engineering Exam (PE)

# 8-Hour Open-Book Exam Morning & Afternoon Sessions 80 Questions

Offered twice a year

Breadth and Depth Format

#### "Breadth & Depth"

(All Objective format – since Fall 2000)

Morning Session – Breadth Module Afternoon Session - Depth Module

**Structural** 

**Transportation** 

**Water Resources** 

Geotechnical Environmental

#### **Transportation Depth Module**

**Transportation** (65%) – Traffic Analysis, Transportation Planning, Construction, Geometric Design, Traffic Safety

**Geotechnical** (15%) – Subsurface Exploration and Sampling, Engineering Properties of Soils, Soil Mechanics Analysis, Shallow Foundations

Water Resources (20%) – Hydraulics, Hydrology

#### "Breadth & Depth"

(All Objective format – since Fall 2000)

Morning Session – Breadth Module Afternoon Session - Depth Module

**Structural** 

**Transportation** 

**Water Resources** 

Geotechnical Environmental

#### **Water Resources Depth Module**

Water Resources (65%) – Hydraulics, Hydrology, Water Treatment

**Environmental** (25%) – Wastewater Treatment, Biology, Ground Water and Well Fields

**Geotechnical** (10%) – Subsurface Exploration and Sampling, Engineering Properties of Soils, Soil Mechanics Analysis

### **Task Analysis**

**Timing** 

10,000 Recipients

**Examination Development** 

# Questions

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